Transportation
Land Development
Environmental
Services

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Meeting Notes

Attendees: See List

Date/Time: June 8, 2005
6:30 - 9:30 PM

Project No.: 51577

Place: Cutler School,
West Swanzey, NH

Re: Public Informational Meeting
Homestead Dam Feasibility Study

Notes taken by: Peter Steckler
Bruce DiGennaro
Peter Walker

A public informational meeting was held to discuss the results of the Homestead Dam Feasibility Study. The meeting follows three previous public meetings during the study – two in May and June of 2004 and one in May of 2005.

Selectman Bob Beauregard opened the meeting by welcoming all attendees. He stated that the dam and the Thompson Bridge are important pieces of Swanzey, and that there is a diversity of opinion on the right course of action. He hopes that the meeting will help the town make a decision. Essentially, the town has the choice of whether to take ownership of the dam and repair it. Otherwise, the dam might be removed.

Mr. Beauregard then turned the meeting over to Deborah Loiselle of the NH Department of Environmental Services. Deb introduced herself as the new River Restoration Coordinator, taking over for Stephanie Lindloff who had taken a position out of state. Deb reviewed the meeting objectives:

- To review the results of the recently issued draft Feasibility Study;
- To discuss issues related to the removal or replacement of the dam;
- To discuss the historical nature of the project area and the process under Section 106 of the National Historic Preservation Act; and
- To air feedback on a future course of action.

She also reviewed the meeting agenda and introduced members of the project partner team, including the following:

- NH Department of Environmental Services (NHDES)
- National Oceanic and Atmospheric Administration (NOAA)
- Town of Swanzey
- Doug Brown, Dam Owner
- US Fish and Wildlife Service (USFWS)
- NH Fish and Game Department (NHF&G)
- NH Division of Historical Resources (NHDHR)

The study aims to provide information to help make a decision on the fate of the dam, and will assemble information on a large number of questions. Stephanie reviewed the study's three main goals: 1) to attain dam safety, either through dam removal or dam repair, 2) to restore unimpeded anadromous fish passage past the site of the Homestead Dam, either through dam removal or installation of a fish passage device, and 3) to ensure the stability of the upstream Thompson Historic Covered Bridge. It is important to note that the study is not focused exclusively on dam removal.

Deb then turned the meeting over to Peter Walker, of the consulting firm Vanasse Hangen Brustlin, Inc. (VHB), which managed the feasibility study. Peter briefly reviewed some of the history of the project to explain the problem with the dam. The dam was first found to be structurally deficient in 1997 and DES issued an enforcement letter to the dam owner in 1998. Because this coincided with the release of a plan for the restoration of anadromous fish to the Ashuelot River, the dam owner agreed to work with the restoration partners to remove the dam. A new dam inspection was completed by the consulting team in August 2004, which found that the dam had serious deterioration.

Peter reviewed some of the more significant events in the project history. In June of 2000, a first public informational meeting was held. At that time, a number of serious questions and concerns were raised that could not be resolved. In spring of 2002, the dam owner allowed his request to remove the dam expire. Working with the project team, the NH Department of Transportation (NHDOT) completed an engineering study of the Thompson Bridge. The consulting team was hired in February 2004 and a public informational meeting was held in May of 2004.

Using an aerial photograph of the dam site and a color USGS topographic map, Peter oriented the attendees to the dam site and the stretch of the Ashuelot River from the dam upstream to Keene. The dam and associated Homestead Mill are in a central location in West Swanzey. The Thompson Covered Bridge is approximately 200 feet upstream, and a new bridge on Denham Thompson Avenue is approximately 1500 feet downstream. Using the aerial photo, Peter pointed out that a large portion of the tailrace (canal) still existed, flowing about 700-800 feet along the east side of the river.

A USGS topographic map of the nearby portions of the Ashuelot River watershed was briefly reviewed. The dam influences the river as far north as the Sawyer Crossing Bridge. Peter highlighted the confluence of the South Branch and mainstem Ashuelot and the confluence of Ash Swamp Brook, near where the mainstem crosses the Keene/Swanzey municipal boundary. The topographic map showed the river to be relatively sinuous, with a number of oxbow features – especially at the South Branch confluence. This is very characteristic of a low gradient, lower perennial stream such as the Ashuelot. Some of the flat lands adjacent to the river are floodplain forests that have been identified as "Exemplary Natural Communities" by the NH Natural Heritage Bureau.

The dam is a timber crib structure, shaped like a pyramid in cross-section, with concrete abutments. It is approximately 10 feet high at its crest, and its abutments are approximately 14 feet high. The current dam was built in 1910. Peter noted the long history of the dam site. Like many mill areas in the state, a dam has apparently been in this location or nearby for more than 200 years. A photograph of the dam repair in 1993 showed that the crib work is lacking the necessary stone fill.

The Feasibility Study explored a number of different alternatives, including ways of preserving the dam as well as a removal option:

Alternative A - No Action. Peter noted that this option is not truly feasible due to safety concerns, but will provide a base case against which to measure environmental and economic costs.

Alternative B – Full Dam Removal. This alternative would involve complete removal of the dam from the river. The concrete abutments would remain, but all timber cribbing would be excavated. The river bed in the area would also need to be re-shaped and stabilized. Obviously, this option

would result in the elimination of the river impoundment. The cost to remove the dam was estimated to be approximately $189,000.

Alternative C1 – Replacement and Addition of a Denil Ladder. This alternative would involve replacement of the dam with the addition of a "Denil fishway." This structure is typically a sloped concrete sluiceway, with a series of baffles that create conditions allowing some fish to "climb." Such a ladder could be constructed on the eastern side of the dam. The total 30-year cost for this option is almost $1.3 million, which includes about $920,000 in construction costs and about $360,000 in operations and maintenance over the 30-year period.

Alternative C2 – Replacement and Addition of a Bypass Channel. It is possible to create a new channel that would act like a small tributary stream to bring fish over the dam. While it was earlier discussed that this channel could be located in the area of the former dam tailrace, the consulting team had decided that a better design would keep the channel relatively short, with its entrance at the toe of the dam. The channel would be 200 to 250 feet long, about 4 feet deep and about 25 feet wide. Again, this alternative assumes that the dam would be replaced. Thirty-year costs associated with this alternative are estimate to be almost $1.2 million.

Alternative D – Rock Ramp. A rock ramp could be constructed, which would artificially create a low waterfall or rapids-like feature leading up to the dam. Peter noted that such a ramp may have a large footprint – on the order of 200 feet in length or more – to make the slope work for shad and salmon. Like other options, this alternative would maintain the impoundment essentially as it is today. Because of reduced annual maintenance and very low operational costs, the Rock Ramp option is the most affordable of the alternatives, with the exception of the dam removal option. It is estimated to cost approximately $650,000 over a 30-year period.

Alternative E – Hydropower. This alternative would be used in combination with the Denil ladder or bypass channel to help fund the required dam reconstruction and maintenance as well as the construction of the new fish passage. It was noted that the possible use of the dam for hydropower was studied in the 1980s and found not to be feasible. However, the town had received an opinion from a local contractor who estimated that the town could earn approximately $40,000 per year if a hydro facility was installed.

So, while many have come to think primarily of removal of the dam, several potential alternatives will be studied that involve repairing and keeping the dam in place. Peter then reviewed the specifics of some of the key findings of the study.

Finding 1.
Hydroelectric is unlikely to provide the income needed to replace and maintain the dam.
The study found that there are a large number of issues associated with the installation of a hydroelectric facility. An earlier development plan by Homestead Hydropower in the 1980s envisioned a new electrical powerhouse on the east bank of the river, downstream of the dam. The dam would be reconfigured in a manner so as to divert a portion of the stream flow into a reconstructed forebay, though a new set of turbines in the powerhouse, and thence into a reconstructed tailrace for discharge back to the river approximately 700 feet downstream.

However, the FERC apparently never took final action on the application because the plan was determined to be unfeasible (Doug Brown, personal communication). Note that evaluation of the hydroelectric generating potential of the Homestead Dam is discussed in the last update of the Swanzey Master plan (Swanzey Master Plan Sub-committee, 2003). Specifically, the Master Plan Update references survey results indicating that approximately two-thirds of respondents had positive interest in exploring this possibility. And, the Update references a "feasibility study" by R.A.

Greenwood (2000) that calculated that hydropower sold at 5.5 cents/kilowatt-hour would produce net revenues of $40,000 per year.

However, the Greenwood report did not account for several major issues, and, in the opinion of the consulting team, underestimated the cost of other issues. Kleinschmidt Associates, a member of the consulting team and a firm that specializes in dams and hydroelectric, found that the construction of a powerhouse would cost nearly $2.0 million. This expense would be on top of approximately $813,000 to replace the existing dam, which would clearly not be acceptable to the Federal Energy Regulatory Commission (FERC), the body that regulates hydroelectric facilities.

Greenwood did not include the cost to install fish passage, which would be required, nor did the report account for the cost to maintain the powerplant and to license and permit the project. In addition to the FERC, the project would also need approval through the US Army Corps of Engineers and the NH Wetlands Bureau. The fact that the dam is located on a "Designated" reach of the Ashuelot River under the Comprehensive Shoreland Protection Act effectively precludes state regulatory approval.

Additionally, it may be difficult to obtain a FERC license/exemption for this site due to the project's minimal generating capacity and the fact that it has low and no flow situations (and therefore generating capacity) when needed most, in the summer months. Per historical stream flow data by USGS there will be 3 to 4 months each year when there is no power generation due to the minimum flow requirements of the turbine and water requirements of the fish bypass system.

Even if the project could receive regulatory approval, when all factors are considered, the consulting team estimates an annual loss of approximately $60,000.

Finding 2.
The dam must be replaced, not repaired.
Peter reviewed the results of the new dam inspection. Tom Kahl, PE, a dam expert from Kleinschmidt Associates, oversaw the inspection. It found that the deterioration of the timber crib and plank decking is significant. In fact, some crib members have actually rotted away and are missing. Timber crib dams are designed to be filled with stone ballast. However, most of the ballast in this dam is missing. The calculated "factor of safety" for the dam is 1.12, which is much lower than the 2.0 factor required by the FERC for this dam type. The dam is so deteriorated, that a complete replacement is the only way to provide for an acceptable factor of safety. This finding underscores that the "No Action" alternative is unacceptable.

Finding 3.
The existing dam is leaking.
During the August 2004 inspection, it was noted that there are major leaks in the dam, particular on river right (west). This is clear evidence of the poor condition of the dam. It also means that the impoundment is lower than historical levels, *i.e.,* closer to a "dam out" condition than people might assume.

Finding 4.
Fish passage options are open.
Any of the three options for providing fish passage could be made to work: the Denil ladder, the bypass channel, or the rock ramp. Based on the preliminary design, it appears that there is enough room and a shallow enough slope that any of the structures could be built.

Finding 5.
Dam removal would have the most ecological benefits to fish and to the water quality of the river.

Peter explained that the target fish for this project are Atlantic salmon, American shad, blueback herring and alewives. Although there has been some suggestion that removal of the dam would expose a waterfall that could not be passed by these fish, the study found little evidence of this. The geotechnical information indicates a lack of bedrock or significant armoring at the dam site. And, hydraulic calculations show that the estimated velocities at the site under a dam removal scenario would be in the range that these fish species could navigate. The post-removal channel would be relatively steep and would likely assume a "cascade," but would be passable to these anadromous fish.

Finding 6.
All of the options are expensive.
A set of cost estimates for each of the options was presented, as follows:

Life Cycle Cost Estimates, by Alternative

Alternative	Construction	O&M	Total (30 years)
A – No Action	$0	$0	$0
B – Full Dam Removal	$188,859	$0	$188,859
C1 – Replacement + Denil Ladder	$919,495	$360,569	$1,280,064
C2 – Replacement + Bypass Channel	$781,596	$375,946	$1,157,542
D – Rock Ramp	$608,705	$38,937	$647,642

Since the No Action alternative is not valid, the least expensive option is to remove the dam, which would cost about $189,000. The two "replacement" alternatives are expected to cost $1.1 to 1.2 million. The rock ramp alternative, which would remove the dam, but replace some of its function with a stone, dam-like structure, would cost about $650,000 over a 30-year period. These cost estimates were derived by the consulting team's engineers using standard methods.

Finding 7.
The Thompson Covered Bridge pier needs stabilization – whether or not the dam is removed.
A 2002 study found that the center pier is susceptible to scour. This study was checked using the new results of the consulting team's computer model of the river and the same conclusion was reached. Peter also explained that a 1992 underwater inspection showed that there is evidence that the pier is being undermined (about 6 to 8 feet horizontally). To fix this, rip-rap (stone fill) was placed at the pier in 1993. However, this rip-rap is thought of as only a temporary solution. Peter showed a engineered drawing of the bridge that shows that the center pier is foundation is very shallow – only a few feet below the river bed – and is set on an erodible sand material, rather than the more stable "glacial till" material on which the abutments sit.

The consulting team therefore recommends that the center pier scour susceptibility be addressed whether or not the dam is removed. NHDOT has reviewed this issue and suggests that the repair be completed within a 5 to 10 year window. If the dam is to be removed, however, they recommend that the pier be fixed prior to removal. The consulting team estimates that the bridge fix will cost $500,000. NHDOT indicated that state matching funds could be available for the repair.

Finding 8.
A "Headcut" is likely, but could be mitigated.
Peter discussed the definition of a "headcut" – an erosion feature that can be initiated when a riverbed of accumulated sediments is disturbed. The headcut would move upstream until equilibrium is reached or until it meets bedrock or some other stable material. He showed photographs of example headcuts. Peter said that two independent analyses during the feasibility study both suggested that a headcut could occur if the dam is removed. However, this could be prevented by a good design for the new channel, likely with some bed armoring required.

Finding 9.
Impact to the visual character (and recreational resource) diminishes as one moves upstream.
The team had completed several photo-simulations in an attempt to visualize what the river would look like if the dam were to be removed. These simulations showed that the character of the river at the dam site and immediately upstream of the dam would change noticeably. However, a simulation at the Sawyer Crossing Bridge showed that the change in the river level would be barely noticeable under typical summer flow conditions.

Finding 10.
Dam removal would affect historical resources.
Elaine Stiles, an Architectural Historian with the consulting team, reviewed the historical nature of the dam and its surroundings. The project has proceeded under the guidance of the NHDHR under Section 106 of the National Historic Preservation Act. Anyone can request to become part of this consultation by requesting "consulting party" status from NOAA.

Elaine explained that the Homestead Dam is on the site of the oldest water power site in Swanzey (c. 1730). The existing dam may have been constructed as early as 1860 to serve the nearby woolen mill and a box shop that is no longer on the site. The dam represents an engineering resource that is quickly disappearing from New England.

The village of West Swanzey itself is a historic area. It was first identified as a potential National Register Historic District in 1995. The consulting team had undertaken a study to document the district boundaries and the resources within the district. The dam it inextricably linked to the historic district due to the fact that the village took shape in this location because of the availability of water power.

The Ashuelot River and its valley are also rich with pre-historic archeological artifacts. The area has been the site of human use for more than 10,000 years and is highly sensitive for archeological resources. Of particular interest is the Swanzey Fish Dam, a pre-historic stone dam a few miles upstream of the Homestead Dam.

The dam removal could affect historical resources. First, as discussed previously, removal of the dam would exacerbate a scour problem at the Thompson Bridge. And the loss of the mill pond would change the character of the historic district. The study found that the river would drop slightly at the location of the fish dam, but there would be no significant increase in erosion at the fish dam. Thus, the potential for damage is limited, but can not be ruled out entirely.

Finding 10.
Other important resources could also be affected, but the effect is expected to be marginal to undetectable.
For example, a hydrogeological investigation concluded that private wells are not likely to be impacted. Dry hydrants (i.e., fire fighting withdrawals) would need to be retrofitted, but would still provide water for fire fighting. The annual canoe race is unlikely to be substantially impacted, although boating at low flow times would change. Sediment testing had been completed and not found any contamination. Other resources, such as the rare dwarf wedge mussel, would benefit from the dam removal.

What's Next
To conclude the presentation, Grace Levergood outlined the process for arriving at a decision. It is expected that the Final Feasibility Study would be released in August. NHDES wants the Town to make a decision on whether to take ownership of the dam by November. If the answer is no, then the dam owner and project partners would proceed to design and permit the dam removal. If the Town does want to take the dam, then a town warrant article would need to be drafted in December, and a

town vote taken in March 2006. NHDES would expect the town to immediately move into planning for the dam reconstruction, no later than 2007.

Following the presentation, the meeting was opened to discussion. The following provides an overview of questions and issues discussed.

Comment: Where can public comments regarding the potential dam removal be submitted?
Discussion: Comments and questions can be submitted to the Swanzey Board of Selectmen and to Deborah Loiselle, NH Department of Environmental Services Dam Bureau. Contact information for Deb was displayed on screen:

Deborah Loiselle
River Restoration Coordinator
NH Dept. of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095
dloiselle@des.state.nh.us
(603) 271-8870
www.des.nh.gov/dam/damremoval?

Mr. Bob Beauregard, Swanzey Selectman, explained that he expects a recommendation as to whether the town should take ownership of the dam will be made to the Selectmen in July 2005. Bob asked for comments from the public to help the town make its decision.

Comment: How would sediment be addressed if the dam is removed?
Discussion: Mr. Walker explained that there is some volume of sediment stored directly upstream of the dam. This sediment would need to be removed along with the dam. If the decision is made to remove the dam, then the consultants would move forward into a "design phase," where a detailed plan would be developed. Part of the plan would describe how the channel would be re-shaped and stabilized in the area.

Comment: A number of attendees expressed concern with the center pier of Thompson Covered Bridge.
Discussion: Steve Johnson (VHB Structural Engineer) and Mark Richardson (NHDOT Bridge Engineer) explained that the feasibility study concurs with earlier NHDOT-sponsored studies which found that the center pier needs to be stabilized whether or not the dam is removed. It was suggested that under current conditions, this work would need to be completed within 5 years, possibly 10 years. VHB has recommended that the center pier be stabilized prior to dam removal, during channel construction.

Regarding funding of the bridge repair, Mr. Richardson explained that state bridge aid is available, but not until the fiscal year 2011. This program would pay for 80% of the costs of the repair, estimated to be $500,000 by VHB. The town would have to pay the other 20%. Mr. Richardson explained that the Dam Bureau and/or the Town would need to come up with funding if any repair is to happen before 2011.

Comment: What is the real risk of the dam failing, and what would happen if it did?
Discussion: Mr. Walker explained that Kleinschmidt Associates, specialists in dam engineering, had conducted a safety inspection and completed calculations to determine the dam safety factor. The inspection determined that the existing dam is beyond repair. The calculated safety factor of 1.12 is much lower than the 2.0 factor required by the FERC for this type of dam. Obviously, if nothing is done, the dam will continue to deteriorate. But, it can not be determined exactly when the dam would fail. Tom Kahl, the lead inspection engineer has speculated that the dam has no more than 5-

10 yrs of life. Grace Levergood (NHDES Dam Safety) explained that, if the dam were to fail, it would put the center pier of the Thompson Bridge at risk. But, the dam is classified as a low-hazard dam. Failure might cause economic impacts upstream. Damage to downstream mussel beds might also result.

Comment: Gerald DeMuro commented that the Feasibility Study did not account for a number of important issues.
Discussion: Among other comments, Mr. DeMuro, a resident of South Ackworth, stressed that he felt that the study did not address the value of the covered bridge, the West Swanzey village center mill pond, the historic nature of the area, and the educational value of the dam and surroundings. NH is gradually loosing its identity and social capital as we become separated from our history and sense of community. He suggested that the dam is important to the future energy supply needs of Swanzey, stating that the dam could produce hydroelectric energy, perhaps even enough to cover municipal needs. The historical nature of the area is important to tourism. He felt that the focus of the discussion should be on the town ownership of the dam. He suggested that too much effort was spent on other issues and not enough thought put into historical investigations.

Peter Walker responded that, although he understood many of the concerns of Mr. DeMuro, he wished to point out that the single largest expenditure of funds during the project was to develop a better understanding of the historic and archeological resources in the area - far greater than other issues – and that a substantial portion of this evening's presentation was focused on historical resources. Mr. James McConaha, the State Historic Preservation Officer, responded by emphasizing the historic importance of the resource. Mr. McConaha said that the project team has spent a great deal of time researching historical issues and he felt the VHB had done a good job explaining the historical value during the evening's presentation.

Comment: The town and DHR noted that the dam replacement cost estimates assumed a timber crib dam. The costs should also be calculated using a concrete or other conventional dam type.
Discussion: The comment was noted. NHDES had discussed the issue with the consulting team and had agreed to complete these additional estimates.

Comment: Tom Warner, a local citizen and canoe enthusiast, explained that he canoes the river from March until June and has been for a long time. He is concerned that dam removal will result in the river straightening, and argued that the dam causes the river to meander. He believes the removal would create damage to property owners as the river responds.
Discussion: Peter Walker suggested that Mr. Warner should carefully review the Feasibility Study, as it contained a lengthy analysis of river hydraulics and geomorphology. During the study, the river was examined by a fluvial geomorphologist (in this case, a PhD river expert with two decades of experience working with rivers) and a computer model (HEC-RAS) developed to help predict changes in the depth, width, velocity and "tractive force" of the river. In fact, the dam does not account for the meandering character of the river. Rather, that is the common form assumed by rivers with a flat grade. Field evidence suggests that the meanders, in fact, were cut well before the dam was in place in the 1700s. And, they continue to move today despite the dam. Changes to the river are not expected to be as dramatic as suggested by Mr. Warner, except in the area within the first ½ mile or so.

Comment: Can the dam be replaced with similar timber crib dam?
Discussion: The current dam could be replaced with a timber crib dam. The dam would be different in some ways, but could be built in a way that it would look the same on the outside.

Comment: A few citizens commented that they are concerned about their wells – some of which are very close to the river. Contrary to a statement made during the presentation, most of the wells in this area are unconsolidated.
Discussion: Peter Walker explained that the well data came from multiple sources. He clarified that artesian wells in the area would clearly not be affected, because these wells draw from a deep bedrock aquifer which is not directly influenced by the river level. The analysis presented in the Feasibility Study uses all available data from the DES & USGS on dug (unconsolidated) wells. Artesian wells were not analyzed. But, the analysis suggests that even dug wells should not be affected. The data did have several wells that do not currently have an adequate water column. Obviously, these wells would continue to have problems.

Comment: Will town propose a meeting to make a decision? If they do, will state step in and overrule?
Discussion: Grace Levergood (NHDES Dam Safety) explained that the state's main interest is in ensuring that the dam is safe. If the town is making timely progress in its decision making, the state will not step in. However, if continuous progress is not made, the state will have to press the issue. The state would not overrule the town.

Comment: One attendee spoke in favor of the dam removal. They felt that many of the river's values were lost when the dam was built. Removing the dam will bring river back to its natural, dynamic state. There should be a balance between pre-historic resources, historic resources, present day resources, and environmental concerns.

Comment: Richard Scaramelli asked if issues regarding flowage rights had been explored?
Discussion: Peter Walker explained that a licensed surveyor investigated flowage rights, but no documentation of transfer of flowage rights was found. The focus of the survey was to find property boundaries and topography in the dam vicinity, however, not necessarily to provide a full title search.

Comment: It was pointed out that 3,000,000 gal/day of treated effluent from Keene is discharged to the river.
Discussion: Dam removal would tend to improve local water quality conditions. The volume of water discharged from the WWTP is not a substantial portion of the river flow, so no effect should be felt.

Comment: It was asked: "What if dam washes out tonight?"
Discussion: Peter Walker commented that that would put the Thompson Bridge at risk. Grace Levergood (NHDES) explained that Doug Brown (current dam owner) would be liable for damages to bridge, and to upstream and downstream areas. However, if the dam was breached by the river, then Mr. Brown would be allowed to leave it in a breached state.

With no further questions or discussion being raised, attendees were directed to the five information stations set up in the room on topics such as dam safety, fisheries and restoration, historical resources, the Thompson Covered Bridge, and the Ashuelot River Local Advisory Committee.

With no further public comments, the meeting adjourned at approximately 9:30 PM.

NB:
Deborah Loiselle and Peter Walker used an electronic slide show during their presentations, a copy of which is attached to these notes.

Attending the meeting on behalf of the project team were: Deborah Loiselle, NHDES River Restoration Coordinator; Grace Levergood, NHDES Dam Safety Engineer; Peter Walker, VHB, Project Manager; Peter

Steckler, VHB, Environmental Scientist; Bruce Digennaro, Kleinschmidt Associates, Water Resources Planner; Matt Bernier, PE, Kleinschmidt Associates, Dam and Hydraulic Engineer; Elaine Stiles, VHB, Architectural Historian; Steve Johnson, VHB, Bridge Engineer; Dr. Robert Goodby, VBI, Project Archeologist; Gabe Griese, NHF&GD, Regional Fisheries Biologist; Jan Rowan, USFWS, Connecticut River Restoration Coordinator, and Sara Carbonneau, Town Planner, Town of Swanzey.